

**SEISMIC SAFETY COMMISSION**

1755 CREEKSIDE OAKS DRIVE, SUITE 100  
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Seismic Safety Commission  
AB 16 Advisory Committee  
Minutes of Meeting  
September 19, 2002  
The Elihu M. Harris State Office Building  
Oakland, CA

**Members Present**

Commissioner Stan Moy, *Chair*  
Commissioner Dan Shapiro  
Dennis Bellet, DSA  
Dick Phillips, EERI  
Thomas Duffy, CASH  
Steve Newsom, CDE  
David Clinchy, Los Rios Comm. Coll. District  
Lupita Cortez, CSBA

**Members Absent**

Commissioner Andrew Adelman  
Commissioner Bill Gates  
Gini Krippner, CDF, State Fire Marshal's Office  
Gary McGavin, AIA  
Bill Holmes, SEAOC

**Staff Present**

Henry Reyes  
Richard McCarthy  
Henry Sepulveda  
Adam Myers  
Abby Browning

**Interested Guests Present**

Jeff Bell, DOF  
Owen Cheung, LAUSD  
George Lewis, LAUSD  
Suzanne Reese, OPSC  
Engel Navea, OPSC  
Gin Yang-Staehlin, Chancellor's Office  
Community Colleges  
Brad Strong, EdVoice  
Jim Hackett, *Guest Speaker*  
Art Ross, *Guest Speaker*  
Kenneth Luttrell, *Guest Speaker*  
John Coil, *Guest Speaker*  
Dan Lewin, *Guest Speaker*  
Anthony Court, *Guest Speaker*

**I. Call to Order/ Introductions**

Chairman Moy called the meeting to order at 10:15 am. He welcomed everyone to the committee meeting and introduced Ms. Lupita Cortez. Ms. Cortez will be replacing Abe Hajela as the California School Boards Association representative.

The Committee approved the minutes of the August 15 meeting.

Chairman Moy asked Mr. Tom Duffy to give the committee of an update on Proposition 47.

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Mr. Duffy explained that AB 16 created the Proposition, and it is for new construction and modernization of school buildings. He also went on to explain the breakdown of funds from this Proposition. (A copy of this will be attached to the hard copy of these minutes.)

Chairman Moy thanked Mr. Duffy for his presentation.

## **II. Presentation by Dennis Bellet and Jim Hackett**

Mr. Dennis Bellet, a Structural Engineer with the Division of the State Architect (DSA), began his presentation by defining DSA's concerns in converting non-Field Act buildings to school use. He mentioned that a critical part of the whole program was the assessment of the building before the purchase. Because the designers are unsure of the requirements, maybe DSA should provide some direction and specificity. He asked, "Do we need to develop guidelines to assist designers in making a very fast, important decision?"

Mr. Jim Hackett, a Structural Engineer with DSA, mentioned that assessment criteria would go beyond just structural. Because of this, these guidelines would need to be well thought out to include cost issues and other important things.

Mr. Hackett then said that DSA is concerned about stepping beyond their knowledge level too quickly. He also mentioned that different building types should also be considered in the initial assessment process.

Mr. Bellet turned the conversation to focus on the retrofit regulations. He said that we need to develop a definition of what equivalent pupil safety performance standard is to the Field Act. He stressed that they cannot write retrofit regulations for some types of buildings.

Mr. Bellet said that a big concern for DSA is getting the regulations ready by April 1<sup>st</sup>.

Mr. Bellet offered a few suggestions as to which regulations they could use for this process such as the current hospital retrofit regulations or the current IR process DSA uses now. He said that these regulations could be adjusted and/or tightened up to be suitable.

Mr. Hackett said that when using these regulations, one area that needs to be developed is the evaluations of a structure. A second thing that needs to be looked at is the foundation systems.

Mr. Hackett said that their current code is based on ductility requirements.

He suggested that in the new regulations, they look at prescriptive requirements such as vertical load and non-structural requirements.

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Mr. Bellet said that another concern of DSA's is the inspection of existing construction.

Mr. Hackett mentioned that you couldn't avoid fire safety, mechanical, and electrical issues in the new regulations.

Mr. Steve Newsom said that those issues definitely need to be dealt with but he asked are these outside of the committee's task?

Mr. Duffy stated that he feels that the first thing that needs to be dealt with is the structural component and then the other things such as fire and life safety and access compliance can be taken care of.

Mr. Richard Phillips noted that it would be much more practical to take the existing IR and alter it according than then try to develop new regulations or work with the CBC Division VI-R (hospital retrofit regulations).

Commissioner Shapiro wanted to point out that our scope should be dealing with the Field Act and focus on the seismic issues. He also wanted to know how DSA approaches the equivalent safety question related to the present IR? Why will DSA not certify it but leaves it to the architect/engineer to certify the building?

Mr. Bellet answered that in the current IR, there is a lack of specificity and too many variables therefore, the equivalent level of safety is difficult to assess.

Mr. Phillips said that one thing to keep in mind was the lateral load path.

Chairman Moy thanked Mr. Bellet and Mr. Hackett for their presentation.

### **III. Presentation by Art Ross and Kenneth Luttrell**

Mr. Art Ross, a structural engineer with Cole, Yee, Schubert and Associates, Sacramento, began his presentation addressing policy issues.

Mr. Ross gave his opinion that "it is entirely possible, and it should be done," regarding the DSA's ability to develop a regulatory process in the conversion of non-Field Act buildings. He added that the process should be done in a manner that is quick, yet thoughtful, so that safety is not compromised.

Mr. Ross then said that buildings without a set of plans should not be picked. And if there is no set of plans, then "the school district needs to be prepared to do a...thorough investigation about what's there."

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Mr. Ross noted that there was a huge difference in life safety and performance.

Mr. Kenneth Luttrell, a structural engineer with Cole, Yee, Schubert and Associates, Sacramento, began by saying that there are many tools used to evaluate older buildings but none of them can be used universally. He also said that evaluations take time to do them properly.

Mr. Luttrell then went on to share his extensive experience in evaluating older buildings with the committee. He also said that he felt that seismic safety can be achieved on any building however, the cost will vary depending on the condition of the building.

Mr. Ross wanted to reiterate that he thinks these regulations can be made and they need to be made in a thoughtful manner.

Chairman Moy thanked Mr. Ross and Mr. Luttrell for their presentations.

**IV. Presentation by John Coil**

Mr. John Coil, a structural engineer with LZA Technology / Thorton-Tomasetti, Los Angeles, began his presentation by talking about wood structures.

He said that there is a fairly significant difference in the design quality of regular buildings compared with school buildings.

Mr. Coil said that having a set of plans was very important for a proper evaluation. He also said in wood building evaluation, you have to do an extensive level of inspection.

Mr. Coil wanted to caution about having regulations that were too specific.

He believes that virtually any building can be brought up to standards.

Mr. Coil believes the main issue is how they relate to the quality control of the construction.

Chairman Moy thanked Mr. Coil for his presentation.

**V. Discussion of Issues Presented by the First Three Speakers**

Commissioner Shapiro asked all the speakers if they had had any experience with the conversion of commercial buildings to school buildings?

Mr. Coil said that he had not but he had been involved with some dramatic renovations.

Mr. Luttrell said that he had not and did not know of any from his office.

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Mr. Ross said that he had done one portable and found reasonable confidence.

Mr. Court replied that had a case with DSA approved designs and then another case where they did the IR preliminary screening and the buildings were rejected.

Mr. Lewin said that he was going to present a case study to the committee after lunch.

Mr. Newsom pointed out that perhaps every building needs to be looked at on a case-by-case basis by DSA.

Mr. Lewin suggested that perhaps equivalent confidence is not a reasonable level due to the existing buildings in service that are not up to these standards.

Commissioner Shapiro shifted the focus back to the original intent, comparing buildings under the current Field Act regulations. He said we have to deal with the present level of safety.

Mr. Bellet said that the confidence level is going to change every time we have a big earthquake and it is important to focus on the current knowledge and level of safety.

## **VI. Presentation by Dan Lewin**

Mr. Dan Lewin, a structural engineer with Hohbach-Lewin, Inc., Palo Alto, began his presentation with a case study on the Historic Hoover Middle School in the San Jose Unified School District.

Mr. Lewin handout a packet with pictures and plans from the case study. This case was particularly unique because this building is a historic building with special regulations and was not DSA certified.

Mr. Lewin said the first major obstacle in restoring this building was the lack of a detailed process.

He also said that a well-detailed set of structural drawings is almost absolutely necessary.

Mr. Lewin stated that in order for a project like this to be successful, there needs to be collaboration up front.

In his presentation, Mr. Lewin endorsed the performance-based design over the code-based analysis. However, he thinks that a code-based design is acceptable for simpler structures. Also, he said that DSA should limit which buildings should be eligible for this process.

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Mr. Lewin mentioned that he thought an appeals process should be instituted to entertain differences in opinions.

Chairman Moy thanked Mr. Lewin for his presentation.

The committee discussed the difference between being DSA stamped and DSA certified. The stamping process takes place before construction based on plans only. The DSA certification takes place after all construction is done. If they do not get DSA certified, then they can get the architect/engineer to certify it.

**VII. Presentation by Anthony Court**

Mr. Anthony Court, a structural engineer with Curry Price Court, San Diego, began his presentation with a general discussion of seismic safety performance issues. A handout accompanied his presentation.

Mr. Court gave three examples of buildings that his firm had worked on by retrofitting.

Mr. Court suggested grouping different types of buildings together for the conversion regulations.

He commented that in some conversions of existing buildings, you will get a better building than that of currently used school buildings.

Mr. Court feels that the IR A-1 is a good starting point for the regulations.

The committee discussed Mr. Court's suggestions for the grouping of buildings and the different sets of guidelines that would go with each group.

Chairman Moy thanked Mr. Court for his presentation.

**VIII. Review of Issues Presented and Recommendations**

The committee continued to discuss the different criteria for the regulations and asked specific questions concerning Mr. Court's examples.

Mr. Lewin mentioned a possible loophole in the process and suggested a requirement, perhaps an age limit, and making the process long and strenuous to divert gain in trying to "cheat" the process.

Mr. Duffy said that the board approval and the fact that they will be using state fund's for these projects, there will be several checks to make sure the system is working correctly.

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Commissioner Shapiro said that one of the key words here is performance and if we can compare the type of performances, which is the key to this whole thing.

Mr. Jeff Bell commented that the importance is whether or not this procedure is possible or not. They also what to know why and what evidence there is to support their opinion.

Mr. Bellet mentioned that it is not yet quite defined what equivalent is and how the committee plans on defining it.

Discussions concluded and Chairman Moy thanked the Committee and observers for their contributions.

The meeting adjourned at 2:15pm.